

CLAIMS

1. A method for retaining a minute droplet on a substrate, said method comprising:

retaining the minute droplet in a layer of a liquid coated over a surface of said substrate with said minute droplet in contact with said substrate, said minute droplet and said liquid separating into two phases.

2. The method for retaining a minute droplet according to claim 1, wherein said minute droplet is aqueous, and said liquid layer coated over the surface of said substrate is oily.

3. The method for retaining a minute droplet according to claim 1 ~~or 2~~, wherein said minute droplet is shot into said liquid layer coated over the surface of said substrate from a surface of said liquid layer.

4. The method for retaining a minute droplet according to claim 1, ~~2 or 3~~, wherein the surface of said substrate has water repellency.

5. The method for retaining a minute droplet according to ~~any~~ ^{claim 1} ~~one of claims 1 to 4~~, wherein the surface of said liquid layer is covered with a covering.

6. The method for retaining a minute droplet according to claim ~~2~~ ⁵, wherein another aqueous solution is retained in said liquid layer in the vicinity of said minute droplet.

7. The method for retaining a minute droplet according to claim 5 ~~or 6~~, wherein said minute droplet is also in contact with said covering.

8. A reacting method comprising:

retaining a minute droplet in a layer of a liquid coated over a surface of a substrate with the minute droplet in contact

with the surface of said substrate, said minute droplet and said liquid separating into two phases,

covering the surface of said liquid layer with a covering, and

effecting a reaction in said minute droplet.

9. The reacting method according to claim 8, wherein said minute droplet is a DNA-containing aqueous droplet, and said liquid layer coated over the surface of said substrate is oily.

10. The reacting method according to claim 9, wherein a site the contact of said minute droplet has an enzyme adsorption preventing agent.

11. The reacting method according to claim 9, wherein the contact site of said minute droplet has a bovine serum albumin coating.

12. The reacting according to claim 8 ~~or 9~~, wherein said liquid layer coated over the surface of said substrate has a thickness of 100 μ m or less.

13. A reaction vessel comprising:

a transparent lower plate,

a spacer having a thickness of 0.05mm or less, and

a transparent upper plate;

said reaction vessel containing a solution in a space surrounded by the spacer.

14. The reaction vessel according to claim 13, wherein said spacer is made of a pressure sensitive adhesive double coated tape.

15. The reaction vessel according to claim 13 ~~or 14~~, wherein a contact site with the solution has a bovine serum albumin coating.